

Maths : Trigonometry

Please refer Pg.No. 238 to 248 in the maths book.

1. Prepare table of trigonometric ratios for $0^\circ, 30^\circ, 45^\circ, 60^\circ, 90^\circ$.
2. Please recall of
 - a) Trigonometric ratios
 - b) Complementary angle
 - c) Trigonometric identities and it's equal forms..
3. Prove that $\tan^2\theta - \sin^2\theta = \tan^2\theta \sin^2\theta$ [2 means square]
4. prove that $(\operatorname{cosec}\theta - \sin\theta)(\sec\theta - \cos\theta)(\tan\theta + \cot\theta) = 1$
5. If $\cos^2\theta/\sin\theta = p$ and $\sin^2\theta/\cos\theta = q$, then prove that $p^2q^2(p^2+q^2+3) = 1$.
(2 means square)
6. prove $\cot\theta + \tan\theta = \sec\theta \operatorname{cosec}\theta$.
7. prove $\sec^6\theta = \tan^6\theta + 3\tan^2\theta \sec^2\theta + 1$.
(6 & 2 in the square).
8. If $\sin\theta + \cos\theta = p$ and $\sec\theta + \operatorname{cosec}\theta = q$, then prove that $q(p^2-1) = 2p$.